

## **REMARKS**

Claims 1-5, 7, 9-14, 16-23 are now pending in the application. Claims 1-23 stand rejected. Claims 1, 7, 12, and 23 have been amended herein, and Claims 6, 8, and 15 have been cancelled. Support for the amendments can be found throughout the application, drawings and claims as originally filed and, as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## **REJECTION UNDER 35 U.S.C. § 103**

Claims 1-5, 7, 9-10, 12-14, 16, 21 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn (U.S. Pat. Pub. No. 2003/0013466; hereinafter "Ahn") in view of Padmanabhan (U.S. Pat. No. 6,766,245; hereinafter "Padmanabhan").

Initially, Applicant notes that Ahn appears to disclose a system for transmitting a message to various cellular phone subscribers that exist within defined geographic regions. In particular, with reference to the Table, Ahn defines his geographical scope as cell wide (cellular area where message originates), PLMN wide (entire cellular network), or location area wide (cellular area where message originates and neighboring cellular areas). Padmanabhan discloses a location determination system in which landmarks are used to determine the location of the user. It is an object of Padmanabhan to replace the Global Positioning System (GPS), due to infrastructure and privacy concerns. In contrast to both Ahn and Padmanabhan, independent Claim 1 has been amended to recite:

...designating an **arbitrary geographic region** to transmit the message to by reference to a physical structure within the geographic region;

determining the addresses of the recipients that are located within the geographic region by using the geospatial database to compare the current reported locations of the recipients with the reference to the structure, the address of at least one of the recipients being a wide area network address;

changing the wide area network address of the recipient to **dynamically obtain a new wide area network address** due to movement of the recipient; and

transmitting the message to the addresses of each of the recipients having current locations within the geographic region by serially **unicasting** the message (emphasis added).

Independent Claim 12 has been amended to recite:

...the transmitter enables reception of a message and a geographic destination designator that designates a geographic destination for the message, and further enables access to the geospatial database to identify the addresses of the receivers in the geographic destination to transmit the message to the identified receivers within that geographic destination based on the reported address for each said identified receiver, the geographic destination comprising a geographic region **arbitrarily defined** by reference to one or more physical structures within the geographic region, the transmitter enabling transmission of the message as **a series of unicast messages** to the identified receivers (emphasis added).

Independent Claim 23 has been amended to recite:

...transmitting a message to at least one selected recipient based on their geographic location by:

(1) **arbitrarily designating a geographic region** for receipt of the message by reference to a plurality of physical structures in the geographic region;

(2) determining the recipients that are within the geographic region by comparing the current reported locations of the recipients to the geographic region; and

(3) **serially unicasting the message** to the addresses of the recipients that are located within the geographic region (emphasis added).

In view of the above discussion, Applicant respectfully asserts that Ahn and Padmanabhan, singly or in combination, do not teach, suggest or disclose each and every element of Claims 1, 12 and 23. In this regard, none of the cited art teach, suggest or disclose **arbitrarily designating a geographic region** for receipt of the message, **dynamically obtaining a new wide area network address** due to movement of the recipient or **serially unicasting** the message to the addresses of the recipients that are located within the geographic region. Rather, Ahn teaches broadcasting messages as a function of the physical locations of cell towers. In other words, Ahn leverages the existing protocols and infrastructure that exist with cellular phone technology to broadcast his message. As known to one of ordinary skill in the art, engineers take particular care to engineer cellular infrastructures, by placing the cell towers in advantageous locations and linking that infrastructure to wired (highly stable and available) network backbones. Mobile cell phone users then move within that infrastructure and their cell phone's wireless transmissions communicate with the cell tower within range to do voice or data transactions. Ahn teaches locating and grouping communications to the users based on the pre-defined cell tower infrastructure (i.e. the known cellular area).

In contrast, Applicant claims arbitrary designating a geographical location (of any arbitrary shape) and transmitting messages to the entities located within those arbitrarily defined geographic regions -- locations which are not serviced by any of the protocols or technologies that Ahn's approach directly depends upon. In other words, Applicant's claims relate to transmitting messages in environments that do not have any existing

communications infrastructures whatsoever (e.g., battlefields, space exploration, under-sea exploration, disaster recovery). As claimed, Applicant's network infrastructure itself is formed by the arbitrary geographic location of the mobile entities themselves. There are no (i.e., zero) existing communications infrastructures that can be leveraged (except perhaps for satellite-based systems in some cases) in the general case. In contrast, Ahn's approach for message transmission is entirely cell phone specific and cannot exist outside of a cell phone infrastructure context. As claimed, each mobile entity has a radio that wirelessly conveys data communications protocols (e.g., Internet protocol (IP)) and those radios themselves self-create the network infrastructure. Because these entities may continually move in perhaps random ways, Applicant's network infrastructure is usually very transient, unstable, and extremely dynamic. Voice, video, and data are conveyed over these self-forming network infrastructures that vary millisecond-by-millisecond as the various entities move relative to each other. Since the entities that comprise the networks themselves are moving in potentially random and certainly unknown ways, the location of those entities are continually changing, and thus, the geographic region for the transmission of the message is continually changing.

In other words, Ahn discloses grouping the transmission of a message based on pre-defined cellular areas (specified by the cellular network infrastructure), while Applicant claims grouping the transmission of a message based on an arbitrarily defined geographic location (based on a geospatial location). Further, Ahn discloses communicating to those entities in the pre-defined cellular areas using multicast transmission techniques, while Applicant claims the use of serial unicast transmissions, an approach that works for continually changing groupings. Applicant notes that

Padmanabhan does not remedy these shortcomings of Ahn as Padmanabhan also does not disclose **arbitrarily designating a geographic region** for receipt of the message or **serially unicasting** the message to the addresses of the recipients that are located within the geographic region. Further, Applicant notes there is no apparent reason to modify Ahn and/or Padmanabhan with either of these features as it would improperly change the principle of operation of both the Ahn and Padmanabhan references.

Accordingly, as Ahn and Padmanabhan fail to teach, suggest and disclose each and every element of Claims 1, 12 and 23, Applicant respectfully requests the Office to reconsider and withdraw the rejection of Claims 1, 12 and 23 under 35 U.S.C. § 103(a). Further, since Claims 2-5, 7, 9, 10, 14, 16 and 21 depend from either independent Claim 1 or 12, Claims 2-5, 7, 9, 10, 14, 16 and 21 should be in condition for allowance for at least the reasons set forth for Claims 1, 12 and 23 above. Accordingly, Applicant respectfully requests the Office reconsider and withdraw the rejections of Claims 2-5, 7, 9, 10, 14, 16 and 21 under 35 U.S.C. § 103(a).

Claims 6 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn and Padmanabhan further in view of Weisshaar et al. (U.S. Pat. No. 6,580,916; hereinafter "Weisshaar"). Claims 8 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn and Padmanabhan further in view of Ogasawara et al. (U.S. Pat. No. 6,947,754; hereinafter "Ogasawara"). Claims 9-10 and 18-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn and Padmanabhan further in view of Jambhekar et al. (U.S. Pat. No. 6,973,318; hereinafter

"Jambhekari"). Claims 11 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn and Padmanabhan further in view of Richard (U.S. Pat. No. 6,785,551; hereinafter "Richard"). These rejections are respectfully traversed.

With regard to Claims 6, 8 and 15, Applicant notes that the rejection to these claims has been rendered moot. With regard to Claims 9-11 and 17-20, Applicant notes these claims depend either directly or indirectly from independent Claims 1 or 12, and thus, Claims 9-11 and 17-20 should be in condition for allowance for at least the reasons set forth for Claims 1 and 12 above. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of Claims 9-11 and 17-20 under 35 U.S.C. §103(a).

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn in view of Padmanabhan and further in view of Weisshaar. This rejection is respectfully traversed.

Applicant refers the Office to the remarks regarding Claims 1, 12 and 23 for a discussion of the Ahn and Padmanabhan references. With regard to Weisshaar, Weisshaar appears to disclose establishing a link with a user device 108 when the user device 108 is in proximity to a local node 106 or other service provider. In contrast to Ahn, Padmanabhan and Weisshaar, singly or in combination, independent Claim 22 has been amended to recite:

...the transmitter enabling operation at an OSI application level to receive a message and a geographic destination designator that **designates an arbitrarily defined geographic destination for the message**, the geographic destination defined by at least one physical structure in the geographic destination and that enables

access to the geospatial database to identify the addresses of the receivers currently reported to be in the geographic destination, to transmit the message to the identified receivers within the geographic destination based on their reported current address, and that enables transmission of the message as a **series of unicast messages** to the identified receivers within the geographic destination (emphasis added).

In view of the above discussion, Applicant respectfully asserts that Ahn, Padmanabhan and Weisshaar, either alone or in combination, do not teach, suggest or disclose each and every element of Claim 22. In this regard, as discussed, neither Ahn, nor Padmanabhan teach, suggest or disclose a transmitter that **designates an arbitrarily defined geographic destination for the message**. Weisshaar does not remedy these shortcomings of Ahn and Padmanabhan, as Weisshaar discloses transmitting a message based on a user's proximity to a defined, fixed node 106. Further, Applicant notes there is no apparent reason to combine Weisshaar with Ahn and/or Padmanabhan as it would improperly change the principle of operation of both the Ahn and Padmanabhan references.

Accordingly, in view of at least the above discussion, as Ahn, Padmanabhan and Weisshaar, alone or in combination, fail to teach, suggest and disclose each and every element of Claim 22, Applicant respectfully requests the Office to reconsider and withdraw the rejection of Claim 22 under 35 U.S.C. § 103(a).

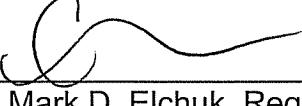
### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests

that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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